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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,351	02/25/2004	Pierre-Emmanuel Cavarec	1006.029	4544

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EXAMINER

SMITH, TYRONE W

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

11A

**Office Action Summary**

Application No.

10/786,351

Applicant(s)

CAVAREC ET AL.

Examiner

Tyrone W. Smith

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-10 and 12-19 is/are rejected.
- 7) ☒ Claim(s) 2 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/27/04 & 7/06/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### **Claim Rejections - 35 USC § 103**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 4, 6-10, 13-19 rejected under 35 U.S.C. 103(a) as being unpatentable over Archer et al (5038087) in view of Perhats (3732447) and Sandhagen et al (4922198).

Regarding Claims 1, 3, 4, 6-10, 13-16 and 18-19. Archer teaches a power assembly for controlling blinds and awnings having at least one operator/actuator (e.g., winding hub 5) coupled to the motor and the blinds to move the blinds when the motor is energized comprising: power means (12 or 24 volts dc, Fig.7); motor means (Figure 7 item 22) energized by the power means; means for coupling the motor means to the operator comprising motor axle (Figure 3 item 6). However, Archer does not teach or disclose a permanent magnet affixed to the rotating member or stationary juxtaposed therewith; and the magnet magnetically braking the rotating member from turning when the motor is deenergized.

Perhats teaches a motor brake arrangement comprising magnetic means on the motor coupling means (iron brake wheel: Figures 1-3 item 23 attached to shaft 179; column 3 lines 48-56), which is attracted to stationary magnet (on the motor casing: Figures 1-3 item 13 and brings frictional material: Figures 1-3 item 24 in contact with braking surface: Figures 1-3 item 29); when the motor is not energized to prevent rotation (column 5 lines 10-40). The motor load is thus not dropped when the motor is de-energized (column 1 lines 16-17). However, neither

Archer nor Perhats discloses at least one piezoelectric element that transfers the force of the magnet to output signals when the rotating member rotates and the signals being useful in determining at least one of speed and position of the motor.

Sandhagen discloses a displacement sensor including a piezoelectric element and a magnetic member where the piezoelectric element (Figures 1 item 6; also refer to Figure 2 item 11 and Figure 3 item 23) transfers the force of the magnet (Figure 1 item 4) to output signals (Figure 1 item 7) when the rotating member (Figure 1 item 1: gear) rotates; the signals being useful in determining at least one of speed and position of the motor (column 4 lines 8-14).

It would have been obvious to one of ordinary skill in the art at the time of invention to use Archer with the concepts of Perhats and Sandhagen. The advantage of combining the two would provide a motion (speed) and relative position indicator which is useful in motorized systems i.e. window coverings, awnings, skylight coverings and curtains.

Regarding Claim 17. The limitation, "providing two piezoelectric elements outputting respective signals and using the signals to determine a direction of rotation of the drive structure." In M.P.E.P. Chapter 21 section 2144.04 under Duplication of Parts where, In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960) (Claims at issue were directed to a water-tight masonry structure wherein a water seal of flexible material fills the joints which form between adjacent pours of concrete. The claimed water seal has a "web" which lies \*\* in the joint, and a plurality of "ribs" \*\* >projecting outwardly from each side of the web into one of the adjacent concrete slabs. <The prior art disclosed a flexible water stop for preventing passage of water between masses of concrete in the shape of a plus sign (+). Although the reference did not disclose a plurality of ribs, the court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced.). In this case, the references,

namely Sandhagen, can provide more than one piezoelectric element to the invention without taking away the method on the invention.

It would have been obvious to one of ordinary skill in the art at the time of invention to use Archer with the concepts of Perhats and Sandhagen. The advantage of combining the two would provide a motion (speed) and relative position indicator which is useful in motorized systems i.e. window coverings, awnings, skylight coverings and curtains.

3. Claims 5 and 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Archer et al (5038087) in view of Perhats (3732447) and Sandhagen et al (4922198) as applied to claims 1, 3, 4, 6-10, 13-19 above, and further in view of Wadensten (4590814).

Archer teaches a power assembly for controlling blinds and awnings having at least one operator/actuator (e.g., winding hub 5) coupled to the motor and the blinds to move the blinds when the motor is energized comprising: power means (12 or 24 volts dc, Fig.7); motor means (Figure 7 item 22) energized by the power means; means for coupling the motor means to the operator comprising motor axle (Figure 3 item 6). However, Archer does not teach or disclose a permanent magnet affixed to the rotating member or stationary juxtaposed therewith; and the magnet magnetically braking the rotating member from turning when the motor is deenergized.

Perhats teaches a motor brake arrangement comprising magnetic means on the motor coupling means (iron brake wheel: Figures 1-3 item 23 attached to shaft 179; column 3 lines 48-56), which is attracted to stationary magnet (on the motor casing: Figures 1-3 item 13 and brings frictional material: Figures 1-3 item 24 in contact with braking surface: Figures 1-3 item 29); when the motor is not energized to prevent rotation (column 5 lines 10-40). The motor load is thus not dropped when the motor is de-energized (column 1 lines 16-17). However, neither Archer nor Perhats discloses at least one piezoelectric element that transfers the force of the

magnet to output signals when the rotating member rotates and the signals being useful in determining at least one of speed and position of the motor.

Sandhagen discloses a displacement sensor including a piezoelectric element and a magnetic member where the piezoelectric element (Figures 1 item 6; also refer to Figure 2 item 11 and Figure 3 item 23) transfers the force of the magnet (Figure 1 item 4) to output signals (Figure 1 item 7) when the rotating member (Figure 1 item 1: gear) rotates; the signals being useful in determining at least one of speed and position of the motor (column 4 lines 8-14). However, the prior art references stated above do not disclose an elongated ferromagnetic shaft; a rotor of the motor; and a vibration damping member interconnecting the rotor and ferromagnetic shaft.

Wadensten discloses a vibration damping apparatus for motor actuated eccentric forces, which includes an elongated shaft (Figure 2 item 66); a rotor of the motor (Figure 2 item 76); and a vibration-damping member (Figure 2 item 75) interconnecting the rotor and shaft. Ferromagnetic (shaft) can be known elements for example iron, nickel and/or cobalt.

It would have been obvious to one of ordinary skill in the art at the time of invention to provide Wadensten's a vibration damping apparatus with the other prior arts of record used in this and the previous rejection. The advantage of combining the two would prevent or substantially eliminate ant transmission of vibration forces from the eccentric weight vibration housing to the connection of the motor housing.

### **Allowable Subject Matter**

3. Claims 2 and 11 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Conclusion**

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pertinent prior arts of record related to the current invention are disclosed in the PTO-892.

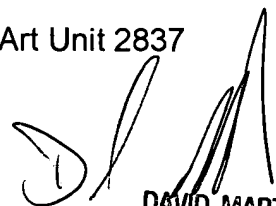
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tyrone W. Smith whose telephone number is 571-272-2075. The examiner can normally be reached on weekdays from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin, can be reached on 571-272-2800 ext. 37. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tyrone Smith  
Patent Examiner

Art Unit 2837



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